

## CLAIMS

What is claimed is:

5           1. A method to enable a wireless device to discover Internet businesses or services by  
accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:  
            forming of a query to the UDDI registry for the wireless device user;  
            constructing a personal user profile of the user's UDDI searching strategies; and  
            providing a shortcut for queries to the UDDI registry, in response to the user's  
10           entry of abbreviated inputs to the wireless device.

            2. The method of claim 1, wherein the method is embodied as programmed instructions  
executed within the user's wireless device to query the UDDI registry.

15           3. The method of claim 1, wherein the method is embodied as programmed instructions  
executed within a separate knowledge engine server to query the UDDI registry in response to  
commands from the user's wireless device.

            4. The method of claim 3, wherein the server caches files accessed from web sites, for  
20           selective forwarding to the user's wireless device.

            5. A method to enable a wireless device to discover Internet businesses or services by  
accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

entering a search handle that will be associated with the user's search strategy;  
entering query terms as at least part of a business name;  
sending a *find\_business* XML inquiry to the UDDI registry; and  
receiving back from the UDDI registry, a *businessList* message that contains a list  
5 of business names satisfying the *find\_business* query.

6. The method of claim 5, which further comprises:

selecting an item from the returned *businessList* message;  
drilling down in the selected business' entity data;  
10 sending a *find\_service* XML inquiry to the UDDI registry;  
receiving back from the UDDI registry, a *serviceList* message that contains a list  
of names of services offered by the selected business.

7. The method of claim 6, which further comprises:

15 selecting an item from the returned *serviceList* message;  
drilling down in the selected service data;  
sending a *\_get\_serviceDetail\_* XML inquiry to the UDDI registry;  
receiving back from the UDDI registry, a *serviceDetail* message that includes  
bindingTemplate data that contains the details of the selected service.

20 8. The method of claim 7, which further comprises:

including in the *bindingTemplate* data an *accessPoint URL*, which is the URL of  
the selected service on the web site of the selected business.

9. The method of claim 8, which further comprises:

displaying the *accessPoint* URL to the user.

5

10. The method of claim 8, which further comprises:

storing the search handle in a user profile with the selected *accessPoint* URL;

providing the user with a shortcut for accessing pages from web sites, in response to the user's entry of abbreviated search handle to the wireless device.

11. The method of claim 8, which further comprises:

storing the search handle in a user profile with a UDDI registry search strategy;

providing the user with a shortcut for online or offline queries to the UDDI registry, in response to the user's entry of abbreviated search handle to the wireless device.

12. The method of claim 11, which further comprises:

said search strategy including the business name query , the selected *businessEntity* data, the selected *businessService* data, the selected *bindingTemplate* data, and the selected *accessPoint* URL.

20

13. The method of claim 11, which further comprises:

replaying a UDDI registry search strategy by entering a search handle into the wireless device;

automatically accessing the UDDI registry search strategy from user profile  
corresponding to the search handle;

loading query values from said UDDI registry search strategy as each respective  
operand that would have been otherwise entered by the user.

5

14. The method of claim 13, which further comprises:

said query values including the business name query , the selected *businessEntity*  
data, the selected *businessService* data, and the selected *bindingTemplate* data.

15. A method to enable a wireless device to discover Internet businesses or services by  
accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

entering a search handle in a wireless device that will be associated with the user's  
search strategy;

entering query terms in the wireless device as at least part of a business name;

transmitting the search handle and query terms to a knowledge engine server;

sending with the knowledge engine server a *find\_business* XML inquiry to the  
UDDI registry; and

receiving back at the knowledge engine server from the UDDI registry, a  
*businessList* message that contains a list of business names satisfying the *find\_business*  
query.

16. The method of claim 15, which further comprises:

selecting an item from the returned *businessList* message;

drilling down in the selected business' entity data;

sending with the knowledge engine server a *find\_service* XML inquiry to the UDDI registry;

receiving back at the knowledge engine server from the UDDI registry, a *serviceList* message that contains a list of names of services offered by the selected business.

17. The method of claim 16, which further comprises:

selecting an item from the returned *serviceList* message;

drilling down in the selected service data;

sending with the knowledge engine server a *\_get\_serviceDetail\_* XML inquiry to the UDDI registry;

receiving back at the knowledge engine server from the UDDI registry, a *serviceDetail* message that includes *bindingTemplate* data that contains the details of the selected service.

18. The method of claim 17, which further comprises:

including in the *bindingTemplate* data an *accessPoint URL*, which is the URL of the selected service on the web site of the selected business.

19. The method of claim 18, which further comprises:

displaying the *accessPoint URL* to the user.

20. The method of claim 18, which further comprises:

storing with the knowledge engine server the search handle in a user profile with the selected *accessPoint* URL;

5 providing the user with a shortcut for accessing pages from web sites, in response to the user's entry of abbreviated search handle to the wireless device.

21. The method of claim 18, which further comprises:

storing with the knowledge engine server the search handle in a user profile with a UDDI registry search strategy;

providing the user with a shortcut for online or offline queries to the UDDI registry, in response to the user's entry of abbreviated search handle to the wireless device.

22. The method of claim 21, which further comprises:

said search strategy including the business name query , the selected *businessEntity* data, the selected *businessService* data, the selected *bindingTemplate* data, and the selected *accessPoint* URL.

23. The method of claim 21, which further comprises:

replaying a UDDI registry search strategy by entering a search handle into the wireless device;

transmitting the search handle to the knowledge engine server;

automatically accessing with the knowledge engine server the UDDI registry  
search strategy from user profile corresponding to the search handle;

loading with the knowledge engine server query values from said UDDI registry  
search strategy as each respective operand that would have been otherwise entered by the  
5 user.

24. The method of claim 23, which further comprises:

said query values including the business name query , the selected *businessEntity*  
data, the selected *businessService* data, and the selected *bindingTemplate* data.

25. A method to enable a wireless device to discover Internet businesses or services by  
accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

entering a search handle in a wireless device that will be associated with the user's  
15 search strategy;

entering query terms in the wireless device as at least part of a business name;

transmitting the search handle and query terms to a knowledge engine server;

searching web sites using URLs contained in stored binding templates;

retrieving documents resulting from the search of the web sites; and

20 applying a filter prescribed by the user and stored in the user's profile, to limit the  
returned documents to only those of particular interest to the user.

26. The method of claim 25, which further comprises:

sorting the documents in a list having an order established in accordance with  
user's profile.

27. The method of claim 26, which further comprises:

5 storing the filtered documents and the sorted list in a cache for later, selective  
accessing by the user.

28. The method of claim 27, which further comprises:

receiving the user's selections from the list and updating the user's profile with the  
user's preferences.

29. The method of claim 28, which further comprises:

associating the search handle with user's selections and with the user's search  
strategy;  
15 storing that association in user's profile.

30. The method of claim 29, which further comprises:

providing the user with a shortcut for accessing pages from web sites, in response  
20 to the user's entry of abbreviated search handle to the wireless device.



31. A system to enable a wireless device to discover Internet businesses or services by  
accessing the Universal Description, Discovery and Integration (UDDI) registry,  
comprising:

a processor;

5 a memory coupled to the processor, programmed to perform the steps of:

entering a search handle in a wireless device that will be associated with the user's  
search strategy;

entering query terms in the wireless device as at least part of a business name;

transmitting the search handle and query terms to a knowledge engine server;

10 sending with the knowledge engine server a *find\_business* XML inquiry to the UDDI  
registry; and

receiving back at the knowledge engine server from the UDDI registry a *businessList*  
message that contains a list of business names satisfying the *find\_business* query.

15 32. A system to enable a wireless device to discover Internet businesses or services by  
accessing the Universal Description, Discovery and Integration (UDDI) registry,  
comprising:

a processor;

a memory coupled to the processor, programmed to perform the steps of:

20 forming a query to the UDDI registry for the wireless device user;

constructing a personal user profile of the user's UDDI searching strategies; and

providing a shortcut for queries to the UDDI registry in response to the user's entry

of abbreviated inputs to the wireless device.